West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Construct

R13-2847

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

JF Allen Company
Pond Lick Mountain Quarry
083-00127

John A. Benedict
Director

Issued: Draft • Effective: Draft

Facility Location:	Bowden, Randolph County, West Virginia
Mailing Address:	PO Box 2049 Buckhannon, WV 26201
Facility Description:	Rock Processing Facility
SIC Codes:	1422
UTM Coordinates:	608.507 km Easting • 4,306.917 km Northing • Zone 17
Permit Type:	Construction

Description of Change: Constructing two crushers, two screens, and three engines.

Any person whose interest may be affected, including, but not necessarily limited to, permittee and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

This permit does not affect 45CSR30 applicability, the source is a nonmajor source subject to 45CSR30.

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1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
H1	H1	Hopper w/Bar Grate (G1)	2010	50 Tons	PE
BC13	BC13	Belt Conveyor	2010	700 TPH	N
CR1	CR1	Jaw Crusher	2010	700 TPH	FE
BC1	BC1	Belt Conveyor	2010	700 TPH	N
BC2	BC2	Belt Conveyor	2010	700 TPH	N
S1	S1	Triple Deck Screen	2010	700 TPH	FE
BC3	BC3	Belt Conveyor	2010	700 TPH	N
RS1	RS1	Radial Stacker	2010	700 TPH	N
BC4	BC4	Belt Conveyor	2010	700 TPH	N
RS2	RS2	Radial Stacker	2010	700 TPH	N
BC5	BC5	Belt Conveyor	2010	700 TPH	N
RS3	RS3	Radial Stacker	2010	700 TPH	N
BC6	BC6	Belt Conveyor	2010	700 TPH	PE
RS4	RS4	Radial Stacker	2010	700 TPH	N
ENG1	E1	Gen Set Diesel Engine	2010	448 hp	N
ENG2	E2	Diesel Engine	2010	440 hp	N
BC7	BC7	Belt Conveyor	2010	450 TPH	PE
H2	H2	Surge Bin	2010	100 Tons	PE
CR2	CR2	Secondary Impactor	2010	450 TPH	FE
BC8	BC8	Belt Conveyor	2010	450 TPH	PE
S2	S2	Triple Deck Screen	2010	450 TPH	FE
BC9	BC9	Belt Conveyor	2010	450 TPH	N
BC10	BC10	Belt Conveyor	2010	450 TPH	N
RS5	RS5	Radial Stacker	2010	450 TPH	N
BC11	BC11	Belt Conveyor	2010	450 TPH	N
RS6	RS6	Radial Stacker	2010	450 TPH	N
BC12	BC12	Belt Conveyor	2010	450 TPH	N
RS7	RS7	Radial Stacker	2010	450 TPH	N

1.0 Emission Units

ENG3	E3	Gen Set Diesel Engine	2010	1,105 hp	N
T-01	T-01	#2 Fuel Oil Tank	2010	8,000 gallon	N

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code § 22-1-6 or § 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_x**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**$PM_{2.5}$**	Particulate Matter less than 2.5µm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**PM_{10}**	Particulate Matter less than 10µm in diameter
C.S.R. *or* CSR	Codes of State Rules		
DAQ	Division of Air Quality	**Ppb**	Pounds per Batch
DEP	Department of Environmental Protection	**pph**	Pounds per Hour
		ppm	Parts per Million
dscm	Dry Standard Cubic Meter	**Ppmv or ppmv**	Parts per million by volume
FOIA	Freedom of Information Act		
HAP	Hazardous Air Pollutant	**PSD**	Prevention of Significant Deterioration
HON	Hazardous Organic NESHAP		
HP	Horsepower	**psi**	Pounds per Square Inch
lbs/hr	Pounds per Hour	**SIC**	Standard Industrial Classification
LDAR	Leak Detection and Repair		
M	Thousand	**SIP**	State Implementation Plan
MACT	Maximum Achievable Control Technology	**SO_2**	Sulfur Dioxide
		TAP	Toxic Air Pollutant
MDHI	Maximum Design Heat Input	**TPY**	Tons per Year
MM	Million	**TRS**	Total Reduced Sulfur
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**TSP**	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour		
		UTM	Universal Transverse Mercator
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	**VEE**	Visual Emissions Evaluation
		VOC	Volatile Organic Compounds
NESHAPS	National Emissions Standards for Hazardous Air Pollutants	**VOL**	Volatile Organic Liquids

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.3.2. 45CSR7 - *To Prevent and Control Particulate Air Pollution from Manufacturing Process and Associated Operations*;

2.3.3. 45CSR16 - *Standards of Performance for Stationary Sources.* 45CSR16 incorporates by reference 40 C.F.R. 60, Subpart OOO - *Standards of Performance for Nonmetallic Minerals Processing Plants and 40 C.F.R. 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

2.4. Term and Renewal

2.4.1. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2847 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to~~,~~.
[45CSR§13-5.11 and §13-10.3]

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA.

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also

furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are not met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary,

in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in

this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
[WV Code § 22-5-4(a)(15)]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State-Enforceable only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345

If to the USEPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Operating Fee.**

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.4.2. In accordance with 45CSR30 – Operating Permit Program, enclosed with this permit is a Certified Emissions Statement (CES) Invoice, from the date of initial startup through the following June 30. Said invoice and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with the Section 4.5 of 45CSR22. A copy of this schedule may be found attached to the Certified Emissions Statement (CES) Invoice.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Emissions from the facility shall not exceed the following:

Source ID	Emission Source	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy)
TP	Includes turning points 1-34	Total Particulate Matter	27.27	57.49
		PM_{10}	14.78	31.14
CR1	Jaw Crusher	Total Particulate Matter	0.28	0.59
		PM_{10}	0.14	0.3
CR2	Hazmag Impactor	Total Particulate Matter	0.49	1.03
		PM_{10}	0.22	0.46
S1	Screen (FE)	Total Particulate Matter	8.75	18.48
		PM_{10}	3.05	6.43
S2	Screen (FE)	Total Particulate Matter	2.25	4.75
		PM_{10}	0.78	1.65
ENG1	Caterpillar C9 DITA	Nitrogen Oxides	2.91	6.13
		Carbon Monoxide	0.54	1.14
		Volatile Organic Compounds	1.13	2.39
		SO_2	0.91	1.92
		PM_{10}	0.15	0.32
ENG2	Caterpillar C13-440	Nitrogen Oxides	2.52	5.32
		Carbon Monoxide	1.36	2.87
		Volatile Organic Compounds	1.1	2.32
		SO_2	0.89	1.88
		PM_{10}	0.1	0.21
ENG3	Caterpillar C27 DITA	Nitrogen Oxides	13.71	28.96
		Carbon Monoxide	1.44	3.04
		Volatile Organic Compounds	0.64	1.35
		SO_2	0.36	0.76
		PM_{10}	0.22	0.46

4.1.2. The total amount of stone/aggregate produced at the facility shall not exceed 2,956,800 tons per year (tpy). Compliance with this condition shall be determined using a 12 month rolling total. The rate of production of stone/aggregate produced at the facility shall not exceed 700 tons per hour (tph).

4.1.3. This facility shall not cause, suffer, or allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity (45-7-3.1). This twenty (20) percent opacity requirement shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. **[45CSR§7-3.2.]**

4.1.4. The Pond Lick Mountain Quarry Facility shall not cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device **[45CSR§7-3.7.]**

4.1.5. The Pond Lick Mountain Quarry Facility shall not cause, suffer, or allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter.
[45CSR§7-5.1.]

4.1.6. The Pond Lick Mountain Quarry Facility shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.
[45CSR§7-5.2.]

4.1.7. The permittee shall not circumvent the provisions of this rule by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.
[45CSR§7]

4.1.8. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.1.9. **Minimization of Fugitive Emissions, Methods and Required Systems**

a. The registrant shall not cause, suffer, allow or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with an effective fugitive dust control system(s). Such system(s) shall be operated and maintained in such a manner as to effectively minimize the emission of particulate matter into the open air;

b. The registrant shall maintain fugitive dust control of the premises and owned, leased or controlled haulroads and access roads by paving or utilization of a water truck. Good operating methods, practices and general maintenance shall be observed in relation to stockpiling, trucking, breaking and screening to effectively minimize the emission of particulate matter;

c. To maintain effective fugitive dust control of the premises and minimize the emission of particulate matter, fugitive dust generation and atmospheric entrainment of particulate matter, the registrant shall properly install, operate and maintain fugitive dust control system(s) designed in accordance with good engineering practices and observe and employ good operating methods, practices and general maintenance. Such fugitive dust control system(s) shall be installed, equipped and operated according to the emissions control equipment and fugitive dust control system design date proposed in the submitted Application.

d. Emissions control equipment and fugitive dust control design date proposed and submitted in the Application shall follow and adhere to the following requirements for fugitive dust control systems, methods, practices and general maintenance. These control system reqiurements represent the minimum level of controls required.

1. The permitee shall adequately maintain and operate on-site: a water truck or combination of a water truck and water sprays to minimize the emission of particulate matter generated from access roads, haulroads, stockpiles and work areas. The water truck shall be operated at all times when fugitive particulate emissions from access roads, haulroads, stockpiles and work areas are generated as a result of vehicular traffic, operational activity or wind. All water trucks and fixed water sprays shall be equipped with a pump and spraybars to apply water or a mixture of water and an environmentally acceptable dust control additive (solution) to access roads, haulroads, stockpiles and work areas where mobile equipment is used. Spraybars shall be equipped with commercially available spray nozzles of sufficient size and number so as to provide adequate coverage to the area being treated. The pump and piping system used to deliver an adequete quantity of water or solution to the spray nozzles at a sufficient pressure to provide and effective spray.

2. Haulroad Maintenance: All haulroads, access roads, stockpile and work areas shall be kept clean and in good condition by replacing base material and/or grading as required.

3. Vehicular Tracking: If tracking of solids by vehicular traffic from access and/or haulroads onto US33 generates or has the potential to generate fugitive particulate matter emissions, the permitee shall properly operate and maintain underbody truck wash, rumble strips or employ other suitable measures to maintain fugitive dust control of the premises and minimize the emission of particulate matter.

4. Transfer Points: All transfer points shall at least be partially enclosed so as to minimize the emission of particulate matter.

5. Crusher, Impactor, and Screens: Jaw Crusher (CR1), Secondary Impactor (CR2), Triple Deck Screen (S1), and Triple Deck Screen (S2) shall be fully enclosed.

6. Load-outs: All truck load-outs shall be equipped with a device and/or employ a specific operating method which minimizes drop height during loadout in order to minimize the emission of particulate matter.

7. Stock-pile Loading: All loading of stockpiles shall be accomplished with a device and/or employ a specific operating method which minimizes drop height during load-in.

8. Dump Bins: All dump bins are required to be partially enclosed and fed by conveyor, endloader, truck or other transport device shall be fitted with effective water sprays. Water sprays are not required to operate when the moisture content of processed material is adequate to ensure minimization of fugitive particulate matter.

e. The permitee shall properly install, operate, and maintain designated winterization systems for all water trucks and/or water sprays in a manner that all such fugitive dust control systems remain effective and functional, to the maximum extent practical, during winter months and cold weather. At all times, including periods of cold weather, permitee shall comply with the requirements, provisions, and any other permit or applicable statutory or regulatory requirement.

4.2. Monitoring Requirements

4.2.1. In order to demonstrate compliance with condition 4.1.2 of this permit, the permitee shall monitor the hourly production rate of stone/aggregate production when in operation.

4.3. Testing Requirements

4.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack testing to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for the test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. **[45CSR§7-8.1]**

4.3.2. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions. **[45CSR§7-8.2]**

4.4. Recordkeeping Requirements

4.4.1. **Records, Operation and Compliance**

4.4.1.a. For the purpose of determining compliance with the Maximum Raw Material Throughput Limitation and Maximum Raw Material Yearly Throughput Limitation set forth in condition 4.1.2., a person designated by a Responsible Official or Authorized Representative shall maintain daily records of raw material throughput and hours of operation. The document(s) shall be submitted and certified by a Responsible Official or Authorized Representative upon request.

4.4.1.b. Compliance with the Maximum Raw Material Yearly Throughput Limit set forth in condition 4.1.2. shall be determined using a rolling yearly total. A rolling yearly total shall mean the tonnage (input) of raw material handled or processed at any given time for the previous twelve (12) consecutive calendar months.

4.4.2. **Monitoring Information**

The registrant shall keep records of monitoring information that include the following:

4.4.2.a. The date, place, and time of sampling or measurements;

4.4.2.b. The date(s) analyses were performed;

4.4.2.c. The company or entity that performed the analyses;

4.4.2.d. The analytical techniques or methods used;

4.4.2.e. The results of the analyses; and

4.4.2.f. The operating conditions existing at the time of sampling or measurement.

4.4.3. **Record of Maintenance of Air Pollution Control Equipment**

4.4.3.a. The registrant shall maintain maintenance records relating to failure and/or repair of air pollution control devices and fugitive dust control systems (Equipment Maintenance Record). In the event of air pollution control equipment, fugitive dust control system or system failure, these records shall document the registrant's effort to maintain proper effective operation of such equipment and/or systems.

4.5. Reporting Requirements

[Reserved]

5.0. 40CFR60 - Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) Requirements

5.1. Limitations and Standards

5.1.1. This facility shall not cause, suffer, or allow or permit emission of smoke and/or particulate matter into the open air from any storage bin, belt conveyor, screen, or transfer point which is greater than seven (7) percent opacity.
[45CFR§60.672(b)]

5.1.2. This facility shall not cause, suffer, or allow or permit emission of smoke and/or particulate matter into the open air from any crusher which is greater than twelve (12) percent opacity.
[45CFR§60.672(b)]

5.1.3. This facility shall conduct testing to show compliance with conditions 5.1.1. and 5.1.2. within sixty days after achieving maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup**.**
[45CFR§60.672(b)]

5.2. Monitoring Requirements

5.2.1. The water suppression system including the water truck will be checked monthly to insure that water is flowing to the discharge spray nozzles. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if water is not flowing.

5.3. Testing Requirements

5.3.1 In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A–1 through A–7 of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

5.3.2. The owner or operator shall determine compliance with the PM standards in §60.672(a) as follows:

(1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A–3 of this part or Method 17 of Appendix A–6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, Appendix A–3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 of Appendix A–4 of this part and the procedures in §60.11 shall be used to determine opacity.

5.3.3. (1) In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of Appendix A–4 of this part and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15

feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.,* road dust). The required observer position relative to the sun (Method 9 of Appendix A–4 of this part, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2)(i) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9 (40 CFR part 60, Appendix A–4), the duration of the Method 9 (40 CFR part 60, Appendix A–4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, Appendix A–4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A–4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

5.3.4. The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

(i) No more than three emission points may be read concurrently.

(ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I of Appendix A–3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part

60, Appendix A–3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of Appendix A–1 of this part [*i.e.,* velocity head <1.3 mm H_2O (0.05 in. H_2O)] and referred to in EPA Method 5 of Appendix A–3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (*e.g.,* from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$v_e = \frac{Q_f}{A_e} \qquad \text{(Eq. 1)}$$

Where:

V_e= average building vent velocity (feet per minute);

Q_f= average fan flow rate (cubic feet per minute); and

A_e= area of building vent and measurement location (square feet).

5.3.5. To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.

5.3.6. For performance tests involving only Method 9 (40 CFR part 60 Appendix A–4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification.

5.3.7. If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in §60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

[45CFR§60.675]

5.4. Reporting and Recordkeeping Requirements

5.4.1. The owners or operators of this facility must record each periodic inspection required under §60.674(b) including dates and any corrective action taken in a logbook. The owner or operator must keep that logbook onsite and make hard or electronic copies (which ever is requested) of the logbook available to the Administrator upon request.
[45CFR§60.676(b)]

5.4.2. The owner or operator of any affected facility shall submit written reports of all performance tests conducted to demonstrate compliance withe the standards set forth in §60.672(b).
[45CFR§60.676(f)]

5.4.3. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.
[45CFR§60.676(i)]

a. For a combination of affected facilities in a production line that begin initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

b. For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and current address or location of the portable plant.

6.0. 40CFR60 - Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) Requirements

6.1. Limitations and Standards

6.1.1. Compliance with the annual #2 fuel oil consumption limitations will be considered compliance with the emission limits set forth in condition 4.1.1. fro ENG1, ENG2, and ENG3. The maximum annual fuel #2 fuel oil consumption for the engines (ENG1, ENG2, and ENG3 respectively) in gallons is the following: 99,264; 97,152; and 223,872. Compliance with the maximum yearly fuel consumption limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the fuel consumption at any given time during the previous twelve consecutive calendar months.

6.1.2. **Recycled or Used Oil**

a. The permittee shall not receive, store, burn or fire any recycled or used oil in the emergency ENG1, ENG2, or ENG3 permitted herein which is considered a hazardous waste or does not meet the used oil specifications below (40 C.F.R. 279.11, Table 1). The burning of used or recycled oil which does not meet these specifications shall constitute a violation of 45CSR25 and 33CSR20.

Constituent or Property	Maximum Allowable Specification
Arsenic	5.0 ppm
Cadmium	2.0 ppm
Chromium	10.0 ppm
Lead	100.0 ppm
PCBs	2.0 ppm
Total Halogen	4000.0 ppm maximum
Mercury	0.20 ppm
Flash Point	100.0 °F minimum

b. Recycled or used oil with a Total Halogen content greater than 1000.0 ppm is presumed to be a hazardous waste under the rebuttable presumption provided in 40 C.F.R. 279.10(b)(1)(ii). Therefore, the registrant may receive, store and burn recycled or used oil exceeding 1000.0 ppm Total Halogen (but less than 4000.0 ppm maximum) only if the supplier or marketer has demonstrated that the recycled or used oil is not and does not contain hazardous waste.

6.1.3. **Storage Tanks**

a. The content, dimensions, and an analysis showing the capacity of all storage tanks shall be recorded.

b. Petroleum liquid storage tank volume shall not exceed 151 m3 (or 39,889 gallons) capacity and maximum true vapor pressure shall not exceed 15.0 kPa (2.17 psia) for petroleum liquid storage tanks greater than 75 m3 (19,812 gallon) capacity; and

c. The registrant shall inform the Secretary of any change in the number of storage tanks or

capacities. The registrant may exchange storage tanks of similar volume as required.

6.1.4. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §60.4204 and §60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.
[40CFR§60.4206]

6.1.5. **Fuel Requirements**
Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).
[40CFR§60.4207a]

6.1.6. **Fuel Requirements**
Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.
[40CFR§60.4207b]

6.1.7. **Fuel Requirements**
Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.
[40CFR§60.4207e]

6.1.8. After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
[40CFR§60.4208a]

6.1.9. After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.
[40CFR§60.4208b]

6.1.10. In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.
[40CFR§60.4208g]

6.1.11. The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.
[40CFR§60.4208h]

6.1.12. If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.
[40CFR§60.4209]

6.1.13. If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[40CFR§60.4209b]

6.1.14. If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.
[40CFR§60.4211a]

6.1.15. If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.
[40CFR§60.4211d]

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.
[40CFR§60.4211d1]

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(I) through (v) of this section.
[40CFR§60.4211d2]

(i) Identification of the specific parameters you propose to monitor continuously;
[40CFR§60.4211d2(I)]

(ii) A discussion of the relationship between these parameters and NOX and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NOX and PM emissions;
[40CFR§60.4211d2(ii)]

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
[40CFR§60.4211d2(iii)]

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
[40CFR§60.4211d2(iv)]

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
[40CFR§60.4211d2(v)]

6.2. Monitoring Requirements

[Reserved]

6.3. Testing Requirements

6.3.1. **Notification of Compliance Testing**
For any compliance test to be conducted by the registrant as set forth in this section, a test protocol shall be submitted to the Secretary at least thirty (30) calendar days prior to the scheduled date of the test. Such compliance test protocol shall be subject to approval by the Secretary. The registrant shall notify the Secretary at least fifteen (15) calendar days in advance of actual compliance test dates and times during which the test (or tests) will be conducted.

6.3.2. **Alternative Test Methods**
The Secretary may require a different test method or approve an alternative method in light of any technology advancements that may occur and may conduct such other tests as may be deem necessary to evaluate air pollution emissions.

6.3.3. Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.
[40CFR§60.4212]

1. The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.
[40CFR§60.4212a]

2. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.
[40CFR§60.4212b]

3. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

NTE Requirement for each pollutant - (1.25) x (STD)

Where:
STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.
[40CFR§60.4212c]

4. Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.
[40CFR§60.4212d]

6.3.4. Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.
[40CFR§60.4213]

1. Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.
[40CFR§60.4213a]

2. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).
[40CFR§60.4213b]

3. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.
[40CFR§60.4213c]

4. To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.
[40CFR§60.4213d]

a. You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:

Ci = concentration of NO_X or PM at the control device inlet,
Co = concentration of NO_X or PM at the control device outlet, and
R = percent reduction of NO_X or PM emissions.

(2) You must normalize the NO_X or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

Where:

$$C_{adj} = C_d \frac{5.9}{20.9 - \%\,O_2} \qquad \text{(Eq. 3)}$$

Cadj = Calculated NO_X or PM concentration adjusted to 15 percent O_2.
Cd = Measured concentration of NO_X or PM, uncorrected.
5.9 = 20.9 percent O_2−-15 percent O2, the defined O_2 correction value, percent.
$\%O_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(I) through (iii) of this section.

(i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209_{Fd}}{F_c} \qquad \text{(Eq. 4)}$$

Where:

Fo = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2, percent/100.

Fd = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm 3 /J (dscf/10 6 Btu).

Fc = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm 3 /J (dscf/10 6 Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:

XCO_2 = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2--15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the NO_X and PM gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 6)}$$

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O_2.

Cd = Measured concentration of NO_X or PM, uncorrected.

$\%CO_2$ = Measured CO_2 concentration, dry basis, percent.

6.3.5. To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 7 of this section: [40CFR§60.4213e]

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \qquad \text{(Eq. 7)}$$

Where:

ER = Emission rate in grams per KW-hour.
Cd = Measured NO_X concentration in ppm.
1.912x10−-3 = Conversion constant for ppm NO_X to grams per standard cubic meter at 25 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour.
T = Time of test run, in hours.
KW-hour = Brake work of the engine, in KW-hour.

6.3.6. To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-}hour} \qquad (Eq.\ 8)$$

Where:
ER = Emission rate in grams per KW-hour.
Cadj = Calculated PM concentration in grams per standard cubic meter.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour.
T = Time of test run, in hours.
KW-hour = Energy output of the engine, in KW.

6.4. Recordkeeping Requirements

6.4.1 For the purpose of determining compliance for ENG1, ENG2, and ENG3 with the Regulated Pollutant Limitation for SO^2, a person designated by a Responsible Official or Authorized Representative shall maintain records of the maximum sulfur content on a per-shipment basis for fuel oil, recycled or used oil or annual certification of the sulfur content from the supplier.

6.4.2. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.
[40CFR§60.4214c]

6.5. Reporting Requirements

[Reserved]

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title _____ _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

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[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.